

**REMARKS**

Claims 1-22 are currently pending in the subject application and are presently under consideration. Claims 1, 3, 4, 11, 13, 14, 21, and 22 have been amended as shown at pages 2-5 of the Reply.

Favorable reconsideration of the subject patent application is respectfully requested in view of the comments and amendments herein.

**I. Objection to Claim 22**

Claim 22 is objected to because of minor informalities. The subject claim has been amended to address the issues raised under this objection. As such, this objection should be withdrawn.

**II. Rejection of Claim 21 Under 35 U.S.C §112**

Claim 21 stands rejected under 35 U.S.C §112, first paragraph, as failing to comply with the enablement requirement. The Office Action asserts that the claim is a single means claims. On the contrary, the claim clearly recites:

*means for transmitting information;* (See specification e.g., paragraph [00136] transmitter 901)

*means for receiving information; and* (See specification e.g., paragraph [00136] receiver 903)

*means for automatically and repeatedly causing the network node to cycle back and forth between transmitting information on a network with the transmitter and receiving information with the receiver from the network in accordance with a pre-determined pattern, wherein the pre-determined pattern is associated with the network node and a plurality of other nodes, the pre-determined pattern defines a cycle with specified transmission and receiving portions for each node, wherein the pre-determined pattern further includes within the cycle at least a partial overlap between a transmission portion and a receiving portion of each combination of two nodes from a group comprising the network node and the plurality of other nodes.* (See specification e.g., paragraphs [0093-98, 00136, 00141] controller 913)

It is clear from the claim and exemplary cited portions of the specification that the claim is not a single means claim and that the claim limitations are fully supported by the specification. Accordingly, withdrawal of this rejection is respectfully requested.

### **III. Rejection of Claims 11-20 Under 35 U.S.C §112**

Claims 11-20 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 11 has been amended as suggested by the Examiner. As such, this rejection should be withdrawn.

### **IV. Rejection of Claims 1-22 Under 35 U.S.C. §102(e)**

Claims 1-22 stand rejected under 35 U.S.C. §102(e) as being anticipated by Shiue, *et al.* (US 6,590,872 B1). It is respectfully submitted that this rejection should be withdrawn for at least the following reasons. Shiue, *et al.* does not disclose each and every feature of the subject claims.

For a prior art reference to anticipate, 35 U.S.C. §102 requires that "each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950 (Fed. Cir. 1999) (*quoting Verdegaal Bros., Inc. v. Union Oil Co.*, 814 F.2d 628, 631, 2USPQ2d 1051, 1053 (Fed. Cir. 1987)).

The subject claims relate to a network with many nodes that each communicate with each other according to a predetermined pattern. In particular, independent claim 1( and similarly independent claim 21) recites *a transmitter; a receiver; and a controller configured to automatically and repeatedly cause the network node to cycle back and forth between transmitting information on a network with the transmitter and receiving information with the receiver from the network in accordance with a pre-determined pattern, wherein the pre-determined pattern is associated with the network node and a plurality of other nodes, the pre-determined pattern defines a cycle with one or more specified transmission portions and one or more specified receiving portions for each node from the group comprising the network node and the plurality of other nodes, wherein the pre-determined pattern further includes within*

*the cycle at least a partial overlap between a transmission portion and a receiving portion of each combination of two nodes from the group comprising the network node and the plurality of other nodes.* The claimed features allow a plurality of nodes to communicate directly with each in accordance with a pattern that provides for overlap between defined transmission and receiving portions of a cycle of any pair of nodes. This advantageously can eliminate the need for a central controller to relay or coordinate the communications.

Shiue, *et al.* does not disclose or suggest the aforementioned novel features as recited in the subject claim. The cited reference is concerned with minimizing error in signal demodulation at a handset receiver. The reference employs a system where many handsets communicate with a base station. The reference fails to disclose direct communication between handsets. More specifically, the reference fails to disclose a *pre-determined pattern that defines a cycle with one or more specified transmission portions and one or more specified receiving portions for each node from the group comprising the network node and the plurality of other nodes, wherein the pre-determined pattern further includes within the cycle at least a partial overlap between a transmission portion and a receiving portion of each combination of two nodes from the group comprising the network node and the plurality of other nodes.* The reference discloses an epoch that defines time slots for handsets to communicate with the base station. In stark contrast, the claim features disclose an overlapping transmission and receiving portion for each combination of two nodes. This allows for each node to communicate directly with each other node at some portion of the cycle. Shiue, *et al.* is silent regarding the recited pre-determined pattern of the subject claim. As such, the reference fails to disclose all aspects of claims 1 and 21.

Independent claim 11 (and similarly independent claim 22) recites *storing a pre-determined pattern associated with the network node and a plurality of other nodes, the pre-determined pattern defines a cycle with one or more specified transmission portions and one or more specified receiving portions for each node from the group comprising the network node and the plurality of other nodes, wherein the predetermined pattern further includes within the cycle at least a partial overlap between a transmission portion and a receiving portion of each combination of two nodes from a group comprising the network node and the plurality of other nodes; and automatically and repeatedly causing the network node to cycle back and forth between transmitting information on a network and receiving information from the network in*

*accordance with the pre-determined pattern.* As discussed *supra*, Shiue, *et al.* fails to suggest the similarly recited bolded features of claims 11 and 22. Therefore, the cited reference fails to disclose all elements of the subject claims.

Claim 3 (and similarly claim 13) recites *the network node of claim 2 wherein the controller is further configured to cause **the transmitter to transmit a pseudorandom noise code offset from the pseudorandom noise code indicative of when the network node will be receiving information.*** Contrary to assertions in the Office Action, Shiue, *et al.* fails to disclose the features of the subject claims. Cited column 9, lines 1-22 discloses adjusting demodulation parameters of a handset receiver according to adjacent bins in order to optimize sample phase timing. The paragraph is silent regarding a node transmitting a pseudorandom noise code offset from the pseudorandom noise code indicative of when the network node will be receiving information. Thus, Shiue, *et al.* does not suggest the features of claims 3 and 13.

Claim 4 (and similarly claim 14) recites *the network node of claim 2 wherein the controller and receiver are further configured to cause **the network node to receive a pseudorandom noise code offset from the pseudorandom noise code from a second network node indicative as to when the second node will be receiving information.*** Column 9, lines 1-22 of Shiue, *et al.* are cited again as teaching the features of claims 4 and 14. Again, this paragraph of the reference relates the demodulation parameters of a handset receiver being adjusted. This adjustment is based upon error estimates of peaks of adjacent bins. The reference is silent with respect to a network node receiving a pseudorandom noise code offset from the pseudorandom noise code from a second network node indicative as to when the second node will be receiving information. As such, Shiue, *et al.* does not disclose the features of claims 4 and 14.

In view of the foregoing, applicants' representative respectfully submits that Shiue, *et al.* fails to disclose or suggest all features of independent claims 1, 11, 21 and 22 (and claims 2-10 and 12-20 that depend there from), and thus fails to anticipate the subject claims. Accordingly, withdrawal of this rejection is respectfully requested.

**CONCLUSION**

The present application is believed to be in condition for allowance in view of the above comments and amendments. A prompt action to such end is earnestly solicited.

In the event any fees are due in connection with this document, the Commissioner is authorized to charge those fees to Deposit Account No. 50-1063 [QUALP839US].

Should the Examiner believe a telephone interview would be helpful to expedite favorable prosecution, the Examiner is invited to contact applicants' undersigned representative at the telephone number below.

Respectfully submitted,  
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